Amendment dated August 5, 2004

Reply to non-final Office Action dated May 5, 2004

## REMARKS

At the outset, the Examiner is thanked for the thorough review and consideration of the pending application. The Non-Final Office Action dated May 5, 2004 has been received and its contents carefully reviewed.

Claims 1-20 are pending in the current application. Applicant thanks the Examiner for indicating that claims 2, 4, 7, 9, 11, 13, 16, 18, 20, 23, and 28 contain allowable subject matter and would be allowed if rewritten in independent form. Applicant believes that the base claims are also allowable, and thus does not rewrite the allowable claims in independent form at this time.

In the Office Action, claims 1, 3, 5, 6, 8, 10, 12, 14, and 15 are rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent 6,255,130 to Kim in view of U.S. Patent 6,028,442 to Lee et al. further in view of U.S. Patent 5,530,568 to Yamamoto et al. further in view of U.S. Patent 5,657,139 to Hayashi further in view of U.S. Patent 5,457,381 to Farwell further in view of U.S. Patent 6,530,068 to Cao.

Claims 17, 19, 21, 22, and 24-26 are rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent 6,524,876 to Baek et al (hereinafter "Baek '876") in view of Lee '442 further in view of Yamamoto '568 further in view of Hayashi '139 further in view of Farwell and further in view of Cao.

Claims 27 and 29 are rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent 6,335,211 to Lee et al (hereinafter "Lee '211") in view of Lee '442 further in view of Yamamoto '568 further in view of Hayashi '139 further in view of Farwell and further in view of Cao.

Amendment dated August 5, 2004

Reply to non-final Office Action dated May 5, 2004

The rejections and objections of claims 1-29 are respectfully traversed and reconsideration is requested. Independent claims 1 and 8 are allowable over the cited references in that each of these claims recites a combination of elements including, for example, "a data on/off pad between adjacent data pads in substantially the same pattern as the data pad for testing a data signal applied to the pixel region" and "a gate on/off pad between adjacent gate pads in substantially the same pattern as the gate pad for testing a gate signal applied to the pixel region". None of the cited references including Kim '130, Lee '442, Yamamoto '568, Hayashi '139, Farwell, Cao, Baek '876, and Lee '211, singly or in combination, teaches or suggests at least these features of the claimed invention.

The Examiner acknowledges that Kim '130 does not disclose or suggest this feature, but alleges that Lee '442, Yamamoto '568, Hayashi '139, Farwell and Cao do make such a disclosure (Office Action, 6/20/2003, page 2, paragraph 3); however, Applicants respectfully disagree. The cited references do not teach on/off pads having the pattern recited in the claims (see Lee '442, Figures 1 and 4-6; Yamamoto '568, Figure 7; Hayashi '139, Figures 3 and 7; Lee '211, Figures 1 and 7A; Farwell, Figures 1-3; Cao, Figures 1, 3 and 4; and Baek '876, Figures 1, 7A, and 8A). Specifically, the claims recite the pattern and position of the on/off pads. The figures in the cited references, as well as their supporting descriptions, are schematic diagrams which do not show the actual positions or patterns of the pads. Therefore, these references do not disclose the pattern as recited in the claims.

For example, Lee '442 discloses "[a] test voltage is applied to first common pad 10 which is connected to a first end of data lines D1 to Di, D1 to D6 in this example" (Lee '442, column 3, lines 14-16). Thus Lee does not disclose or suggest "a data on/off pad between adjacent data pads in substantially the same pattern as the data pad for testing a data signal applied to the pixel

Amendment dated August 5, 2004

Reply to non-final Office Action dated May 5, 2004

region" and "a gate on/off pad between adjacent gate pads in substantially the same pattern as the gate pad for testing a gate signal applied to the pixel region" as recited in claims 1 and 8.

Because the cited references do not disclose, teach, or suggest at least this feature of independent claims 1 and 8, claims 1 and 8 are allowable. Claims 2-6 and 9-16 are allowable at least by virtue of their dependence on claims 1 and 8, respectively.

Independent claim 17 is allowable over the cited references in that this claim recites a combination of elements including, for example, "at least one of the testing data on/off pads and the testing gate on/off pads has substantially the same pattern as the data pads and the gate pads". None of the cited references including Baek '876, Lee '442, Yamamoto '568, Hayashi '139, and Farwell and Cao, singly or in combination, teaches or suggests at least these features of the claimed invention. The Examiner acknowledges that Baek '876 does not disclose or suggest this feature, but alleges that Lee '442, Yamamoto '568, Hayashi '139, and Farwell and Cao do (Office Action, 6/20/2003, page 3, paragraph 3); however, Applicants respectfully disagree. The cited references differ from the present application in that they do not disclose or suggest, for example "a data on/off pad between adjacent data pads in substantially the same pattern as the data pad". The cited references do not teach on/off pads having the pattern recited in the claims (see Lee '442, Figures 1 and 4-6; Yamamoto '568, Figure 7; Hayashi '139, Figures 3 and 7; Farwell, Figures 1-3; Cao, Figures 1, 3 and 4; and Baek '876, Figures 1, 7A, and 8A).

Because the cited references do not disclose, teach, or suggest at least this feature of independent claim 17, claim 17 is allowable. Claims 18-26 are allowable at least by virtue of their dependence on claim 17.

Amendment dated August 5, 2004

Reply to non-final Office Action dated May 5, 2004

Independent claim 27 is allowable over the cited references in that this claim recites a combination of elements including, for example, "forming gate on/off pads and data on/off pads having substantially the same pattern as the gate pads and provided between gate pads". None of the cited references including Lee '211, Lee '442, Yamamoto '568, Hayashi '139, and Farwell and Cao, singly or in combination, teaches or suggests at least these features of the claimed invention. The cited references differ from the present application in that they do not disclose or suggest, for example, "gate on/off pads...having substantially the same pattern as the gate pads". The cited references do not teach on/off pads having the pattern recited in the claims (see Lee '442, Figures 1 and 4-6; Yamamoto '568, Figure 7; Hayashi '139, Figures 3 and 7; Lee '211, Figures 1 and 7A; Farwell, Figures 1-3; and Cao, Figures 1, 3 and 4).

Because the cited references do not disclose, teach, or suggest at least this feature of independent claim 27, claim 27 is allowable. Claims 28 and 29 are allowable at least by virtue of their dependence on claim 27.

In view of the above, each of the presently pending claims in this application is believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to withdraw the outstanding rejection of the claims and to pass this application to issue.

If for any reason the Examiner finds the application other than in condition for allowance, the Examiner is requested to call the undersigned attorney at (202) 496-7500 to discuss the steps necessary for placing the application in condition for allowance. All correspondence should continue to be sent to the below-listed address.

Amendment dated August 5, 2004

Reply to non-final Office Action dated May 5, 2004

If these papers are not considered timely filed by the Patent and Trademark Office, then a petition is hereby made under 37 C.F.R. §1.136, and any additional fees required under 37 C.F.R. §1.136 for any necessary extension of time, or any other fees required to complete the filing of this response, may be charged to Deposit Account No. 50-0911. Please credit any overpayment to deposit Account No. 50-0911. A duplicate copy of this page is enclosed.

Dated: August 5, 2004

Respectfully submitted,

George G. Ballas

Registration No.: 52,587

MCKENNA LONG & ALDRIDGE LLP

1900 K Street, N.W. Washington, DC 20006

(202) 496-7500

Attorney for Applicant